

REMARKS

This is a full and timely response to the Office Action mailed June 1, 2005.

By this Amendment, claims 5 and 6 have been amended to address the Examiner's objection and rejection under 35 U.S.C. §112, second paragraph. Support for the claim amendments can be found throughout the specification and the original claims, see, for example, page 6, lines 21-24, of the specification. Claims 5-8 are pending in this application.

In view of these amendments, Applicant believes that the pending claims are in condition for allowance. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

Objection to Claims 5 and 6

Claims 5 and 6 are objected to for failing to provide proper antecedent basis for the phrase "*the halftone portion*". Applicant has amended claims 5 and 6 to address the Examiner's objection.

Rejection under 35 U.S.C. §112

Claims 5 and 6 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicant respectfully traverses this rejection.

However, in the interest of expediting the prosecution of the present application, Applicant has amended claims 5 and 6 to overcome all of the Examiner's concerns. Specifically, Applicant has deleted the terms "*formed by*" and "*mixed*". However, Applicant notes that the amendments should not change the original intended meaning of the claims. The original phrases "*cells formed by an AM screen*" or "*cells formed by a FM screen*" should not have been interpreted to direct to a process. Instead, the phrases should have been interpreted to define structure. Cells formed by an AM screen or a FM screen have a structure well known in the art of gravure printing. Under U.S. practice, a structure implied by a process should be considered when assessing patentability over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979). Nevertheless, to make clear the Examiner's understanding in this regard, Applicant has amended claims 5 and 6 to clarify that the cells of the printing rolls of (a) and (b) are cells of an AM screen or a FM screen.

Likewise, the above explanation is also applicable for the original phrase “*the grid-shaped AM screen is gradually mixed from the halftone portion*”. The process language of this phrase has been used to define structure by identifying the location (i.e. *from the halftone portion*) on the printing roll where the grid-shaped AM screen is gradually formed or applied. It should be noted that a preferred aspect of the present invention is that the cells of an AM screen and a FM screen are present on a printing roll in a mixed state. It should also be noted that another preferred aspect of the present invention is that the cells of the AM screen and the FM screen are not present in a mixed state at any one of the rolls, but rolls having cells of the AM screen and other rolls having cells of the FM screen are present in a mixed state in the plurality of printing rolls (see page 13, lines 1-11). Such an understanding clarifies the need to define that “*the grid-shaped AM screen is gradually formed or applied from the halftone portion*”.

Thus, in view of the claim amendments, withdrawal of this rejection is respectfully requested.

Rejection under 35 U.S.C. §102

Claims 5-8 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Rice (U.S. Patent 5,396,839). Applicant respectfully traverses this rejection.

To constitute anticipation of the claimed invention, the cited reference must disclose each and every limitation of the claims. Here, in this case, Rice fails to teach the claimed limitations

*“wherein said cells of (a) are cells of an AM screen,
wherein said cells of (b) are cells of a FM screen ranging from a highlight portion to a shadow portion, or said portion ranging from the highlight portion to a halftone portion is the FM screen, and
wherein the grid-shaped AM screen is gradually mixed from the halftone portion, and the AM screen is completely formed at a region of the shadow portion”.*

The present invention is directed to a gravure printing method comprising printing a plurality of colors to be overlapped by an application of a plurality of printing rolls. The plurality of printing rolls comprise a combination of cells of an AM screen and a FM screen to minimize the FM screen problems of poor concentration and the AM screen problems of poor transfer of ink (at the highlight portion), vague contour of slanted fine or curved lines, and occurrence of moire. In the present invention, letters or lettering images requiring dark ink concentration are

printed with cells formed by an AM screen to ensure a requisite and sufficient dark ink concentration, and photographic images or fine lines expressed by a gradation are printed with cells formed by a FM screen to produce sharp lines and avoid moire. Such a combination is not taught or suggest by Rice.

Rice only teaches a method for printing color images using the optical properties of the printed surface. In Rice, a plurality of printing cylinders is used. However, such plurality of printing cylinders does not comprise the claimed combination of cells of an AM screen and a FM screen. The color printing cylinders in Rice are only arranged to allow the printing stock to pass sequentially through the color printing cylinders, and to properly register each halftone image with respect to the other cylinders. There is no teaching anywhere in Rice regarding cells of AM or FM screens, or their combined use.

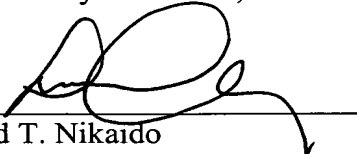
Thus, for these reasons, withdrawal of this rejection is respectfully requested.

CONCLUSION

For the foregoing reasons, all of the claims now pending in the present application are believed to be clearly patentable over the outstanding rejection. Accordingly, favorable reconsideration of the claims in light of the above remarks is courteously solicited. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

Dated: August 15, 2005

Respectfully submitted,

By 
David T. Nikaido
Registration No.: 22,663

Lee Cheng
Registration No.: 40,949

RADER, FISHMAN & GRAUER PLLC
1233 20th Street, N.W.
Suite 501
Washington, DC 20036
(202) 955-3750
Attorneys for Applicant

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